

## SPECIFICATION

### WHEELED SUITCASE WITH SPACE-SAVING SHORTENED HANDLE

#### FIELD OF THE INVENTION

[0001] The present invention generally relates to suitcases, and particularly to wheeled suitcases with a telescoping draw handle.

#### BACKGROUND OF THE INVENTION

[0002] Easily transportable luggage has included boxes with casters which make translation of a box along a horizontal surface easier. A suitcase with a set of four wheels on the bottom extended the same principle to suitcases. As shown in FIG. 5, prior art suitcases having only two wheels (not shown) along a bottom edge and a cantilevered handle provide more flexibility in maneuvering the suitcase, with generally less strain on the user. The problem with such a system is that, normally, the collapsible handle 4 is mounted in a housing 3, which is fixedly attached inside the suitcase between a base support 2 and an upper collar 6. Thus, the housing 3 extends lengthwise through the center of the bottom of the suitcase. This placement creates an inconvenient bulge inside the bottom of the suitcase, which makes packing flat items in the bottom of the suitcase difficult. In such a suitcase, a user normally packs a group of small items in the suitcase bottom to the sides of the housing 3. Packing boxes or flat items, like folded shirts, in the suitcase is troublesome. Furthermore, the full-length housing 3 adds weight to the suitcase.

[0003] Therefore, an improved roll-away suitcase is desired which has an area of flat space in the bottom of the suitcase which is uninterrupted by

the handle housing.

## SUMMARY OF THE INVENTION

[0004] A main object of the present invention is to provide a wheeled suitcase with a shortened pull handle assembly to create a larger flat, useable space in the bottom of the suitcase.

[0005] To achieve the above object, a rollaway suitcase has a frame, a cover covering the frame, a stabilizing brace joining two opposite sides of the frame, a pair of corner wheels, a pull handle collar, and a pull handle assembly mountable between the stabilizing brace and the pull handle collar. The frame and the cover comprise the case body for packing the contents of the suitcase within. The corner wheels allow easy translation motion of the suitcase on a flat surface. A slide handle provides a convenient device for pulling and controlling motion of the suitcase. The stabilizing brace both holds the sides of the frame in fixed relation and provides a mounting point for a lower end of the pull handle assembly. Because the pull handle assembly occupies less than a length of the bottom of the suitcase, a large area of flat space is created in the bottom of the suitcase for easier packing of flat objects.

[0006] Other objects, advantages and novel features of the invention will become more apparent from the following detailed description of a preferred embodiment thereof when taken in conjunction with the accompanying drawings, wherein:

## BRIEF DESCRIPTION OF THE DRAWINGS

[0007] FIG. 1 is a perspective view of a wheeled suitcase having a retractable pull handle in accordance with a preferred embodiment of the present invention;

- [0008] FIG. 2 is a detail of an inside surface of the suitcase of FIG. 1;
- [0009] FIG. 3 is a second embodiment of a suitcase of the present invention;
- [0010] FIG. 4 is a third embodiment of a suitcase of the present invention; and
- [0011] FIG. 5 is a prior art suitcase.

### DETAILED DESCRIPTION OF THE INVENTION

- [0012] Referring now to the drawings in detail, FIG. 1 shows a suitcase (not labeled) in accordance with a preferred embodiment. The suitcase shown comprises a case body 1, a pull handle collar 11, a stabilizing brace 12, a pull handle assembly 13, and a pair of wheels 14. The pull handle assembly 13 comprises a pull handle support 123, a hollow tube 131, and a retractable slide handle 132. The retractable slide handle 132 is slidably retained in the hollow tube 131 and slides between the pull handle collar 11 and the pull handle support 123. The slide handle 132 movably penetrates the pull handle collar 11.
- [0013] The case body 1 comprises an internal frame 17 and a cover 15. The frame 17 shown is rectangular in shape and has four lateral walls. The cover 15 is made of a flexible material and covers the frame 17 on all sides. If the sides of the frame are designated as a proximal lateral wall 173, an opposite distal lateral wall 171, a first lateral wall 175 and an opposite second lateral wall 177, then the cover 15 will comprise and cover the frame 17 with, correspondingly, a proximal lateral panel 173a, a distal lateral panel 171a, a first lateral panel 175a, and a second lateral panel 177a (each corresponding to walls 173, 171, 175, and 177, respectively). The cover 15 will additionally comprise a top panel 23 and a bottom panel 21.
- [0014] The stabilizing brace 12 shown in Figure 1 is U-shaped and is

rigidly attached to the first and the second lateral walls 175, 177. Attachment may be by glue, screws, rivets, or the like.

[0015] The wheels are mounted to the distal lateral wall 171 adjacent the bottom panel 21 of the suitcase. The pull handle collar 11 is mounted to the proximal lateral wall 173 adjacent the bottom panel 21. The pull handle support 123 is rigidly attached to the stabilizing brace 12. The pull handle assembly 13 is fixedly attached to the internal frame 17 and stabilizing brace 12 such that, together, they are an organic whole. The stabilizing brace 12 is positioned to an inside of the bottom panel 21, and the pull handle assembly 13 is fixed parallel to an inside surface of the bottom panel 21.

[0016] Extra stabilizing braces (not shown) may also be attached to the internal frame 17 between the stabilizing brace 12 and the pull handle collar 11 to strengthen the connection between the pull handle assembly 13 and the internal frame 17.

[0017] In use, boxes and flat items may be easily packed in the flat expanse in a bottom of the suitcase between a lower end of the pull handle support 123 and the distal lateral wall 171. Smaller items or rolled items may be packed in the area between the pull handle support 123 and the proximal lateral wall 173. Thus packing is simplified and more gratifying. Note the added advantage that the flat area of packing space near the distal lateral wall 171 is also the area that a person would naturally want to pack heavier items, such as gift items or books, since it is lower to the ground when wheeling the suitcase. The area of flat packing space, therefore, coincides with the area with the lowest center of gravity in the wheeled configuration. Other advantages of the suitcase are the shortened pull handle assembly lightens the empty weight of the suitcase and saves material, and the brace 12 reinforces the frame of the suitcase, increasing

the rigidity of the first and second lateral walls 175, 177.

[0018] Figure 3 shows an alternate embodiment of the suitcase, in which the U-shaped stabilizing brace 12 is replaced with a single flat brace 12'. In this embodiment, a plurality (four are shown) of L-shaped corner braces 124 is necessary to attach the brace 12' to the frame 17. The corner braces 124 are affixed between two sides of the frame 17 and the flat brace 12' using screws or rivets. Additional flat braces 12' may be added to the frame 17 between the flat brace 12' shown and the pull handle collar 11 to strengthen the connection between the pull handle assembly 13 and the internal frame 17. The hollow tube 131 can be fixed to the additional flat braces 12'.

[0019] Figure 4 shows a third embodiment of the invention, in which the frame 17'' and the brace 12'' are made of one, integral piece of material. In this case, no further means of attaching the brace 12'' to the frame 17'' is needed. More than one brace 12'' may be provided to strengthen the connection between the pull handle assembly 13 and the internal frame 17''.

[0020] In all embodiments, a surface of the bottom panel 21 is planar.

[0021] To reduce weight, the frame 17 and brace 12 are made of a hollow plastic panel (i.e., such as honeycomb board).

[0022] It is understood that the invention may be embodied in other forms without departing from the spirit thereof. Thus, the present embodiment is to be considered in all respects as illustrative and not restrictive, and the invention is not to be limited to the details given herein.